

**SYSTEM AND METHOD FOR MEASURING MATERIAL ADDED TO A VESSEL
UNDER A DYNAMIC VACUUM**

Abstract

The present invention relates generally to weight measurement methods and systems, and more specifically, to weight measurement methods and systems for material in a dynamic vacuum material transfer or other system utilizing differential conveying fluid pressure. The invention determines a corrected weight of a batching tank. The invention includes measuring and logging weights and pressures while the batching tank is being evacuated and determining the density of the air in the batching tank at one or more pressures. While material is being transferred into the vessel the invention measures the weight and pressure of the batching tank and calculates the corrected weight based on logged weights, logged pressures, and the density of the material added to the batching tank.